

Docket No. F-8567

Ser. No. 10/S27,765

REMARKS

Claims 7-25, 27, 28 and 30 are now pending in this application. Claims 7-17 and 21-29 are rejected. Claims 1-7, 26 and 29 are previously cancelled. New claim 30 is added. Claims 7, 8, and 13 are amended herein to clarify the invention as discussed below. In accordance with 37 C.F.R. §1.111(a)(2)(ii), applicants request entry of this supplemental amendment as being filed during the aforesaid period of suspension.

REMARKS ARE SUPPLEMENTAL

The following remarks supplement those presented in the Amendment after Final Rejection filed December 29, 2008, and are to be considered in conjunction with those remarks. While the present amendments revise the claims, the prior remarks remain pertinent to the subject matter addressed therein and remaining in the presently pending claims.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102(b)

Claims 7-10, 13-17 and 21-29 are rejected under 35 U.S.C. § 102(e) as being anticipated by the Zapf '927 reference. Applicant herein respectfully traverses these rejections. "Anticipation requires the presence in a single prior art

Docket No. F-8567

Ser. No. 10/527,765

reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added). It is respectfully submitted that the cited reference is deficient with regard to the following.

As related in the Amendment after Final Rejection filed December 29, 2008, the Zapf '927 reference functions based upon an entirely different principle than the claimed invention. The '927 reference uses change in *mutual inductance* of coupled coils in order effect a switching function. This difference was highlighted and attested to in a Rule 132 Declaration filed with the amendment. It was further noted that a revised version of the declaration was to be submitted. The revised Rule 132 Declaration is submitted herewith wherein the German terminology of "counter inductivity" is replaced by the conventional English terminology of "mutual inductance." As related in the pending claims, the switching of the present invention is based on changes in "self-inductance" to produce a predominant signal change. It is respectfully submitted that this sufficiently distinguishes over the '927 reference.

In order to further distinguish over the '937 reference, claims 7, 8, and 13 are amended herein to relate that the coil of claim 7 and the first and second coils of claims 8 and 13 are *conductively driven* with the oscillation signal of claim 7.

Docket No. F-8567

Ser. No. 10/527,765

or the first and second signals of claims 8 and 13 and that it is the change in those signals that is detected. In contrast, only the exciter coil 12 of the '937 reference is *conductively* driven while the sensor loop 13 is *inductively* driven by the mutual inductance coupling the two coils. This is specifically related in the '937 reference as follows:

The inductive switching unit 2 functions as follows: the oscillating power source (Q) 11 impresses into the exciter loop 12 an electric current which alternates over time. The electric current generates a magnetic field M₁ which alternates over time and which has the field strength H₁ (x, y, z). The magnetic flux which alternates over time and which acts on the sensor coil 13 brings about a voltage in the sensor coil 13, as in any electrical conductor, which is placed in the vicinity of the exciter coil 12. The sensor voltage is amplified by the amplifier 1a, the amplitude is determined with the detector 15 and the evaluation unit 16 compares it with a switching criterion K. FIG. 4 shows an example of the switching criterion K. In simple switches, the evaluation can be carried out by means of a comparator or a Schmitt trigger. The evaluation unit 16 for multiple switches is usually in the form of a microcontroller which passes on the switching information to control electronics or power electronics via an interface (CAN, LIN, etc.).

Col. 2, line 52 to col. 3 line 2. As related above it is the magnetic flux of magnetic field M₁ that produces a signal in the sensor loop 13 which is detected in the '937 reference. This signal in coil 13 is *inductively* generated in loop 13. In contrast, the presently claimed invention detects the signal used to *conductively* drive the respective coil undergoing a change in *self-inductance*. In the '937 reference only the signal in loop 12 is conductively driven in the loop, in contrast the signal in

Docket No. F-8567

Ser. No. 10/527,765

loop 13 is *induced* by the magnetic field and it is the signal in loop 13 that is detected. It is respectfully submitted that the present claim language can therefore not be read on the '937 reference.

In view of the above, it is respectfully submitted that claims 7-10, 13-17 and 21-29 particularly describe and distinctly claim elements not disclosed in the cited reference. Therefore, reconsideration of the rejections of claims 7-10, 13-17 and 21-29 and their allowance are respectfully requested.

With regard to claims 12, 24 and 27, the '937 reference does not disclose the characteristic change detected being a change in resonant frequency. Since the loop 12 is driven by an oscillator current producing circuit 11 as shown in Fig. 1, the frequency is considered to remain constant. Indeed, no mention of detecting frequency change is made in the '937 reference, hence claims 12, 14 and 27 clearly distinguish over the applied reference. Therefore, reconsideration of the rejections of claims 12, 24 and 27 and their allowance are respectfully requested.

NEW CLAIM

Claim 3 is added and is submitted as patentable for providing a switching device wherein movement of the conductor actuator element in a direction normal to a plane of the coils and also in a direction varying overlapping of the coils is used to effect switching.

Docket No. F-8567

Ser. No. 10/527,765

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited.

Respectfully submitted,
JORDAN AND HAMBURG LLP

By C. Bruce Hamburg
C. Bruce Hamburg
Reg. No. 22,389
Attorney for Applicants

and,

By H F Ruschmann
Herbert F. Ruschmann
Reg. No. 35,341
Attorney for Applicants

Jordan and Hamburg LLP
122 East 42nd Street
New York, New York 10168
(212) 986-2340

enc: Declaration Under 37 C.F.R. §132 (3pgs)